

AMENDMENTS TO THE CLAIMS

Listing of Claims:

This Listing of Claims will replace all prior versions, and listings, of claims in the application:

1-9. (Cancelled)

10. (Currently Amended) An apparatus comprising, a first channel comprising a restriction barrier comprising a first angled wall and a second angled wall positioned relative to the first angled wall to form a first opening at least 1 micron in width or diameter and a second opening less than 10 microns in width or diameter, wherein the first opening has a greater width or diameter than the second opening, further comprising a laser light source operable as an optical tweezers and a series of lenses to form a gradient force optical trap.

11. (Original) The apparatus of claim 10, wherein the second opening is less than 1 micron in width or diameter.

12. (Original) The apparatus of claim 10, further comprising a light source and a detector to detect a surface enhanced Raman spectroscopy emission of a molecule irradiated by the light source, the first channel in optical communication with the light source and the detector.

13. (Currently Amended) A system comprising: a) a light source; b) a detector to detect a surface enhanced Raman spectroscopy emission of a molecule irradiated by the light source; and c) a first channel in optical communication with the light source and the detector, wherein the first

channel comprises a restriction barrier within the first channel, the restriction barrier comprising a plurality of walls to restrain movement of a single particle upstream of light emitted by the light source, wherein the particle has a diameter between 0.1 and 20 microns.

14. (Original) The system of claim 13, wherein the restriction barrier comprises a first angled wall and a second angled wall positioned relative to the first angled wall to form a first opening at least 1 micron in width or diameter and a second opening less than 10 microns in width or diameter, wherein the first opening has a greater width or diameter than the second opening.

15. (Cancelled)

16. (Previously Presented) The system of claim 14, further comprising a second channel forming a junction with the first channel.

17. (Original) The system of claim 16, wherein the restriction barrier is located upstream of the junction of the first channel and the second channel.

18. (Original) The system of claim 17, wherein the gradient force optical trap is positioned downstream of the junction of the first channel and the second channel.

19. (Original) The system of claim 18, wherein the light source is positioned downstream from the restriction barrier and upstream from the gradient force optical trap.

20. (Original) The system of claim 13, wherein a portion of a flow path in optical communication with the detection light source is coated with silver, gold, platinum, copper or aluminum.

21-45 (Cancelled)

46. (New) An apparatus comprising a first channel having a restriction barrier within the channel, the restriction barrier comprising a first angled wall and a second angled wall positioned relative to the first angled wall to form a first opening large enough to capture a single particle and a second opening small enough to prevent passage of the particle but large enough to allow passage of a biomolecule, wherein the first opening is at least 100 nm wide and the second opening is less than 10 microns wide, and wherein the first opening has a greater width or diameter than the second opening, further comprising a laser light source and a series of lenses to form a gradient force optical trap.